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ABSTRACT

Student attitudes and opinion surveys are a major component of the Detroit High School Improvement Project's evaluation plan. This report presents the results of the 1984 survey at Northwestern High School and compares them with two prior surveys (1982 and 1983). The number of student respondents from all grades from randomly selected classes closely approximated the percentage distribution of enrollment by grade. The Student Opinion Inventory, published by the National Study of School Evaluation, was used, consisting of 34 questions sorted by 6 school descriptor categories: student activities, instruction, curriculum, guidance and counseling, school morale, and school administration. Guidance and counseling and curriculum were most favorably assessed. Near uniformity was found in the category rankings for both the mean of the percent responding favorably and for the magnitude of the mean scores in all three surveys. School administration ranked sixth, and student activities ranked fifth in all three surveys. School morale ranked fourth in the last two surveys, but in 1982, it ranked second. The appendices, tables which comprise more than half the document, deal with such topics as: (1) survey questions with 1984 response results by grade level; (2) survey questions with frequency responses, mean scores and chi-square test results for each survey; and (3) mean scores per grade per year with analysis of variance and linearity significance levels. (BS)

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# REPORT ON THE RESULTS OF THE MAY, 1984, SURVEY OF NORTHWESTERN HIGH SCHOOL STUDENTS

# AND

# A COMPARISON OF SURVEY RESULTS FOR THE LAST THREE YEARS

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October, 1984

# REPORT ON THE RESULTS OF THE MAY, 1984, SURVEY OF NORTHWESTERN HIGH SCHOOL STUDENTS AND A COMPARISON OF SURVEY RESULTS FOR THE LAST THREE YEARS

## Introduction

A major component of the High School Improvement Project's (HSIP) evaluation plan has been the surveying of student attitudes and opinions. At Northwestern High School, all four grades, for the last three years, have participated in the surveys. Student respondents have been members of randomly selected classes. In grades nine, eleven and twelve, selection was made from the roster of social studies classes; in grade ten, biology classes were sampled.

The number of classes per grade chosen to participate in the survey was based on each grade's proportion of the school's enrollment total in the spring of the school year. All three surveys were conducted in late spring. The number of classes included in the study sample was expanded from 16 in 1982 to 21 for 1983 and 1984.

In all three surveys, the percentage distribution of enrollments by grade closely approximated the percentage distribution of classes surveyed by grade. While the percentage distribution in the number of questionnaires completed per grade varied slightly from enrollment and classes surveyed in 1982, the variation was more pronounced in 1983 and 1984. For example, in 1982, the ninth grade contributed to 37 percent to the total enrollment, 37 percent to the number of classes surveyed, and 34 percent to the total number of questionnaires returned. In 1983, the ninth grade represented 43 percent of school enrollment, 38 percent of the classes surveyed, but 29 percent of the questionnaires returned. In 1984, one out of every six completed questionnaires lacked a grade designation. This factor in 1984, plus differentials in

class size and absenteeism, probably contributed to the variations in the percentage distributions in 1984 and 1983.[1]

One-fourth of the school's enrollment completed questionnaires in 1983 and 1984, and because of a smaller sampling, the proportion in 1982 was one-seventh. For individual grade groups in each of the surveys, uniform proportions characterized but the first survey. In 1982, one-seventh of each grade group returned completed questionnaires. In 1983, the proportion ranged between 15 percent (ninth grade) and 32 percent (twelfth grade). Figures for 1984 are shown in Table 1.

The Student Opinion Inventory, published by the National Study of School Evaluation, was the survey instrument used in all three surveys. As an introduction to the purpose of the questionnaire, the following statement was appended to the instrument: "The purpose of this questionnaire is to assist your school in learning more about its instructional program. Your opinions and attitudes are of vital importance in helping your school learn more about itself."[2]

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[1]As might be expected, variation by grade in the number enrolled vis-a-vis the number of questionnaires returned was of sufficient magnitude to be statistically significant via $x^2$ testing in 1983 and 1984. The $x^2$ test results were: 1983 ($x^2 = 31.93$, df = 3, $P < .01$), 1984 ($x^2 = 21.11$, df = 3, $P < .01$), and 1982 ($x^2 = 1.00$, df = 3, P = NS).

[2]Each teacher administering the questionnaire was asked to read the following statement, which also served to remind the students of Northwestern High School's involvement in HSIP: "This class is one of many in our school which is being asked to fill out the questionnaire you have been given. Before you start, I would like to tell you why you are asked to do this. Northwestern High School is one of eight Detroit high schools participating in a four year school improvement project. Our school has received a grant of over $25,150 to support our third year of project activities. The goal of the project is to improve teaching and learning at Northwestern. Since December, 1981, a committee of teachers, counselors, administrators, and a parent have been holding meetings to plan ways and means for working toward school improvement goals. You are asked to help in this effort. Your honest answers to the questions in this questionnaire will help the committee learn what is most needed to improve our school."

TABLE 1

MARCH, 1984, ENROLLMENT, CLASSES SURVEYED, QUESTIONNAIRES RETURNED BY NUMBER AND PERCENT, AND PERCENT OF QUESTIONNAIRES AS A PROPORTION OF MARCH, 1984, ENROLLMENT PER GRADE

| Grade | March 1984 Enrollment | | Survey Sample Of Classes | | Questionnaires Returned | | Questionnaires Returned As A Percent Of Grade Enrollment |
|---|---|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | Number | Percent | |
| 9 | 731 | 39% | 8 | 38% | 123 | 31% | 17% |
| 10 | 529 | 28 | 6 | 29 | 90 | 23 | 17 |
| 11 | 370 | 20 | 4 | 19 | 98 | 25 | 27 |
| 12 | 269 | 14 | 3 | 14 | 81 | 21 | 30 |
| Total Sample | 1899 | 101 | 21 | 100 | 392* | 100 | 21** |

*An additional 77 student answer sheets were returned with grade placement unmarked. These represent 16 percent of the sample surveyed.

**The percentage of the total enrollment with the 77 additional answer sheets included was 25.

The Student Opinion Inventory has 34 questions with five response choices per question. For purposes of analysis and discussion, the 34 questions were sorted topically into six school descriptor categories. These are: student activities, instruction, curriculum, guidance and counseling, school morale, and school administration.

The report is divided into two parts: four narrative summary sections and three appendices of tabular displays.

Narrative Sections

The first narrative section presents the students' differential assessments, in 1984, of the six school descriptors, using the mean of the item or question scores per school descriptor as the assessment measure (see Table 2) and a comparison of favorable responses, i.e., the summing of the percent choosing the two most positive responses as for example, 'very satisfied' and 'satisfied' or 'all' and 'most,' for all three surveys, 1982-1984 (see Table 3).

The second narrative section presents the students' differential assessments (1) as summed percents of positive responses, per question—a convenient measure and indicator of response tendency—and (2) as results of one-way analysis of variance tests of differences in mean scores among the four grades, and results of Sheffe tests of differences of mean scores between grades (see Appendix A) for the 1984 survey.

The third narrative section focuses attention on attitudinal changes over time. The discussion reports chi-square test results for items on the survey instrument where response frequencies, reported in percents, shifted in sufficient magnitude, over time, to result in statistically significant chi-square values (see Appendix B).

TABLE 2

NUMBER OF QUESTIONNAIRE ITEMS, MEAN OF THE ITEM SCORES AND THEIR RANKING, MEAN OF THE PERCENTS RESPONDING FAVORABLY AND THEIR RANKING PER SCHOOL DESCRIPTOR CATEGORY

| School Descriptor Categories | Number Of Items Per Category | Mean Of The Item Scores[1] | Rank | Mean Of The Percents Responding Favorably[2] | Rank |
|---|---|---|---|---|---|
| Student Activities | 6 | 3.18 | 5 | 43.7 | 5 |
| Instruction | 8 | 3.50 | 3.5 | 56.1 | 3 |
| Curriculum | 5 | 3.62 | 1 | 59.4 | 2 |
| Guidance & Counseling | 5 | 3.52 | 2 | 59.6 | 1 |
| School Morale | 4 | 3.50 | 3.5 | 54.3 | 4 |
| School Administration | 6 | 2.80 | 6 | 34.2 | 6 |

[1]Based on a five-point scale, with '1' least favorable and '5' most favorable.

[2]The percents responding favorably were derived by adding the percents of the two favorable choices on each item. For example, on Item 34, the percents answering 'Very Satisfied' and 'Satisfied' to the question, "In general, are you satisfied with your school?" were summed.

TABLE 3

NUMBER OF QUESTIONNAIRE ITEMS AND MEANS OF THE PERCENTS RESPONDING FAVORABLY[1] AND THEIR RANKINGS PER SCHOOL DESCRIPTOR CATEGORY FOR 1982 TO 1984

| School Descriptor Categories | Number Of Items Per Category | 1982 | | 1983 | | 1984 | |
|---|---|---|---|---|---|---|---|
| | | Mean | Rank | Mean | Rank | Mean | Rank |
| Student Activities | 6 | 47.0 | 5 | 43.0 | 5 | 43.7 | 5 |
| Instruction | 8 | 54.2 | 4 | 54.8 | 3 | 56.1 | 3 |
| Curriculum | 5 | 65.8 | 1 | 61.0 | 1 | 59.4 | 2 |
| Guidance and Counseling | 5 | 61.6 | 3 | 58.4 | 2 | 59.6 | 1 |
| School Morale | 4 | 65.5 | 2 | 53.8 | 4 | 54.3 | 4 |
| School Administration | 6 | 33.8 | 6 | 32.3 | 6 | 34.2 | 6 |

[1]The percents responding favorably were derived by adding the percents of the two favorable choices on each item. For example, on Item 34, the percents answering 'Very Satisfied' and 'Satisfied' to the question: "In general, are you satisfied with your school?" were summed.

The final narrative section briefly summarizes changes in the number of statistically significant one-way analysis of variance tests and tests of linearity among grade groups over the course of the three surveys. The information presented in Appendix C was tabulated for display in this section with the results of chi-square tests reported. The first two of four tables have aggregate significant and non-significant test results by survey year; the second two tables present the aggregated results by school descriptor categories.

Appendices

Appendix A presents the responses of Northwestern high school students from the 1984 survey on the Student Opinion Inventory. The responses for each question are tabulated in percents and the displays are grouped by school descriptor category. Additionally, one-way analysis of variance test results, among the four grade groups, and where statistically significant, the results of t-test comparisons, using Scheffe's test for differences between grade groups, are presented with each tabular display.[1]

Appendix B consists of frequency responses, in percents, and mean scores for each of the three surveys per question, together with chi-square test results derived from testing the frequency distributions of each tabular display.[2]

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[1]While the values for the statistics computed (i.e., F ratios from the one-way analysis of variance tests and t values from the Scheffe tests) are not included in this report, they are on record and are available upon request. This also applies to Appendix C where significance levels are reported but no statistical values per se.

[2]The number of cases reported for the 1984 sample in Appendix B tables is markedly higher than the sample totals in tables found in Appendix A where data are differentiated by grade. This is due to the fact that a large number of questionnaires returned lacked grade designations (see footnote in Table 1).

The third set of tables in Appendix C brings together the mean scores per grade per year for each question along with the significance levels for tests of differences among means, one-way analysis of variance, and for tests of linearity.

## School Descriptor Categories

Of the six school descriptor categories, guidance and counseling and curriculum were most favorably assessed by the students surveyed at Northwestern high school. Approximately sixty percent of the students, on the average, responded favorably to the questions in each of the school descriptor categories. School administration received the least favorable assessment. An average of one-third of the students responded favorably to the six school administration questions. More moderate responses were evoked by questions on instruction, school morale, and student activities. On the average, half of the respondents answered favorably to questions in the former two school descriptors and roughly two-fifths to the latter category of questions (see Table 2).

There was near uniformity in the rankings of school descriptor categories for both the mean of the percent responding favorably and for the magnitude of the mean scores in all three surveys (see Table 3). In 1983 and 1984, four of the six school descriptor categories retained the same rank with the top two ranked categories alternating first and second positions. School morale ranked fourth in the last two surveys, but in 1982, it ranked second behind curriculum. The shift downward of school morale altered the positions of the middle three categories in the 1983 and 1984 surveys.

The following pattern of regularity to be observed in the rank order of school descriptor categories for all three surveys is (1) school administration ranked last in all three surveys with an average of only one-third of the student sample responding favorably to school administration questions; (2) student activities ranked fifth or next-to-last in all three surveys, and the means of favorable responses ranging between 43 and 47 percent; (3) instruction ranked fourth in 1982 and third in teh two most recent surveys, but the means of favorable responses were virtually identical--54, 55, and 56 percent respectively for the three years; and (4) guidance and counseling moved upwardly with each successive survey, from third to first position, but the difference in mean scores for all three years was 3 percentage points.

It should be noted in passing that curriculum was fairly consistent in rank order position--first in 1982 and 1983, and second in 1984. Mean scores of favorable responses varied from a high of 62 percent in 1982 to a low of 58 percent in 1983.

As noted above, response to school morale questions evidenced a marked decline in favorable opinions. The proportion shifted from two-thirds in 1982 to approximately one-half in 1983 and 1984, with a corresponding drop in rank from second to fourth.

## Results of the 1984 Survey

### Student Activities

Approximately one-fifth of the Northwestern high school student respondents indicated that many or all of the student activities in which they participated involved students in the planning phase. Differences among grades were most pronounced between freshmen and seniors. Although

differences among grade means were not statistically significant, as measured by a one-way analysis of variance test, a test for linearity produced statistical significance.[1] That is to say, the proportion of positive responses increased with each ascending grade group from freshmen to seniors.

Half of the students felt that they would be accepted in most or all school activities. One-fourth thought that they would be accepted in few or in none of the school's activities. Differences among grade groups were not statistically significant.

Although half of the students anticipated acceptance in most or all school activities, almost half indicated they would participate in few or in none of the school's student activities. Only a third expressed a desire to participate in most or all activities. Freshmen were least likely to want to participate in most or all and more likely to want to avoid participation. However, differences among the grade groups were not statistically significant.

Northwestern high school students were somewhat ambivalent in their judgements as to the suitability of activities' sponsors. Two-fifths felt most or all the sponsors were well suited, a third thought few or none were well suited, and a fourth indicated that about half of the sponsors were well suited in directing student activities. Seniors were least positive in their assessments. Differences in mean scores among the grade groups were not statistically significant.

Differences between lower (ninth and tenth) and upper (eleventh and twelfth) grade groups on satisfaction or lack of satisfaction with the variety and on the quality of student activities offered at Northwestern high school--two separate questions--were marked and statistically significant.

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[1] See significance levels for tests of linearity reported in Appendix C tables.

Half of all respondents expressed satisfaction with the quality of student activities offered at Northwestern. Almost sixty percent expressed satisfaction with the variety of activities offered. For both inquiries, just over ten percent were dissatisfied.

Between grade differences in the assessment of the variety of student activities offered were most pronounced between ninth and eleventh graders. Three-fourths of the ninth graders expressed satisfaction, and one-twentieth expressed dissatisfaction. One-third of the eleventh graders were satisfied and one-fifth were dissatisfied with the variety of offerings.

In terms of quality, both grade groups expressed extreme positions. Two-thirds of the ninth graders were satisfied; three percent were dissatisfied. Less than one-third of the eleventh graders indicated satisfaction with quality, and one-fourth revealed dissatisfaction.

Besides statistical significance in differences among and between mean scores, there was also a relationship between grade ascendance and increasing expression of dissatisfaction that was not due to chance for each of these items.

Instruction

On all but one of the eight questions comprising the school descriptor instruction, the difference in responses among the four grade groups was not sufficiently varied to be statistically significant. But, for five of the eight questions, tests for linearity proved statistically significant.

Three-fifths of the students answered positively to five questions: 59 percent felt that most or all of their teachers seemed to care if they learned; 65 percent indicated that their teachers usually or always explained

clearly what to do on assignments; 65 percent reported their teachers usually gave most or all the help that was needed for school work; 60 percent agreed that most or all of their teachers made sure they understood what the teacher taught; and 67 percent felt that their teachers usually or always explained how assignments were to be done.

On all five questions, proportions of freshmen answering positively were greater than those of seniors answering positively. With the exception of the question that dealt with the amount of help given by the teacher for homework, the tests for linearity on the responses were all statistically significant.

Less than half of the students reported that most if not all of their teachers were willing to give students individual help outside of class time.

An almost equal proportion indicated that few or none of their teachers were willing to do so. These opinions were fairly uniform among the four grades.

Not many more than a third of the students were of the opinion that most or all of their teachers gave them enough personal encouragement in their school work. Two-fifths held that few or none of their teachers did. Approximately half of the seniors shared this observation.

While half of the students expressed satisfaction with teaching methods employed by most or all of their teachers, one-fourth found satisfaction with few if any of their teachers' methodologies. Differences among grade means were statistically significant, and between the means of grades nine and eleven.

Fifty-seven percent of the former and 36 percent of the latter answered favorably; 19 percent of the former and 31 percent of the latter answered negatively. Moderate positions were taken by 23 percent and 36 percent

respectively. There was also a statistically significant relationship between degree of satisfaction and grade level.

Curriculum

On the average, three out of five students responded favorably to the five questions measuring various aspects of school curriculum. But, for each of these questions, the variation in the responses among the four grades was statistically significant and, on four questions, there was a statistically significant linear relationship between grade level and response. Consistently, ninth and tenth graders were more positive in their appraisals of curricular concerns than were eleventh or twelfth graders. The range of the difference in percentage points between the highest positive percent and lowest positive percent was 17 and 31.

Two-thirds of the ninth graders but less than half of eleventh and twelfth graders believed that most or everything they were studying would be useful in everyday living. Proportions of negative expressions were one-tenth among the latter and one-fifth or less among the two former grade groups.

Close to three-fourths of the tenth graders but just over half of the eleventh graders felt that in most or all of their classes they were "learning a lot" this year. Overall, approximately two-thirds answered favorably; one-tenth answered unfavorably.

About half of the students judged that most or all of the many things they should be learning at present were being taught to them at Northwestern high school. Here again, there was a marked difference between the feelings of freshmen and those of the two upper grade student groups. Whereas two-thirds of the former made positive assessments, only two-fifths did so among the latter two groups. At the opposite end of the response scale, one-tenth

of the former felt that none or few of the things they should be learning were being taught, but one-fourth of the latter shared this opinion.

There was a statistically significant dichotomy of responses between upper and lower grades to the question of how much were the students learning. Two-thirds of the ninth graders and three-fourths of the tenth graders said almost all or all that they could learn they were learning. These opinions were shared by only half of the seniors and just over two-fifths of the juniors.

Similarly, seven out of ten ninth and tenth graders expressed satisfaction with the variety of subjects offered students at Northwestern, yet only four out of ten eleventh graders and half of the seniors held the same opinion. In addition, one-fourth of the juniors were dissatisfied with subject offerings.

Guidance and Counseling

Among the services provided students by their counselors that were addressed in the survey instrument, assistance in the selection of courses received the most favorable assessment (68 percent); help in the selection of a college, vocational or trade school received the second most favorable assessment (60 percent); help in the selection of a vocation was third in proportion of favorable responses among students (52 percent); and the least favorably assessed service was help given to solving personal problems (41 percent).

A fifth item in this series dealt with the general evaluation of guidance and counseling services at Northwestern. Overall, 65 percent of the students were either satisfied or very satisfied with the way they were treated by their counselors.

Differences in mean scores among the four grades were statistically significant on all five guidance and counseling questions, and on four questions linear relationships were also significant.

On all questions, ninth and tenth grade students were the most positive; eleventh grade students the most negative. The highest proportion of eleventh grade students answering favorably on any question was just under half, and on two questions, the proportions of unfavorable responses were approximately half.

As noted above, the least favorably viewed guidance and counseling service was help given in solving personal problems. About half of the eleventh graders, close to half of the twelfth graders, and two-fifths each of the lower grade students reported they received little or none of the help that they needed. For all four groups, the proportion answering unfavorably exceeded the proportion answering favorably.

School Morale

On three of the four questions addressing school morale, the proportion of students answering favorably was approximately half. On all four questions, differences among the mean scores of all four grades were statistically significant.

The most favorable student response to a school morale question occurred with two-thirds answering that they usually or always felt they "belonged" at Northwestern. Between grades statistically significant differences were found for the tenth grade (80 percent answered favorably) and the eleventh grade (54 percent answered favorably).

Half of the students expressed satisfaction, generally, with Northwestern High School. Both ninth and tenth graders registered the same proportion of satisfaction--60 percent, and each group differed statistically from the eleventh graders whose proportion of satisfied students was 35 percent and whose proportion of dissatisfied students was 41 percent. In addition, there was a statistically significant linear relationship between grade level and response.

A similar pattern of responses was obtained for the question of how proud or ashamed students were of their school. Half of the ninth and tenth graders were either proud or very proud, but only four percent of the former and 14 percent of the latter felt any degree of shame. By contrast, only one-third of the eleventh graders were proud and one-fourth felt ashamed or very ashamed. Differences in means between those of the eleventh grade and each of the lower two grades were statistically significant.

The fourth question, in the set of school morale descriptors, asked students to rate school spirit. (School spirit was defined as "student support of athletic teams, charity drives, class money-raising projects, etc.") Sixty-four percent of the freshmen and 66 percent of the sophomores rated Northwestern's school spirit as either good or excellent; 22 percent of the juniors and 42 percent of the seniors expressed the same favorable ratings. Ten percent of freshmen and sophomores, respectively, characterized school spirit unfavorably, but as high a proportion as one-third of the juniors and one-fourth of the seniors rated school spirit as either poor or very poor. Between grade differences in mean scores for each of the lower two grades with each of the two upper grades were statistically significant.

School Administration

School Administration was perceived as the weakest school characteristic by Northwestern high school students. On all six questions comprising this school descriptor category, an average of only one-third responded favorably. The range of favorable percentages varied from a high of 46 to a low of 21. In sharp contrast, the proportions of unfavorable responses were larger on four of the six questions; the average was 41 percent answering negatively across all six questions; and the range of negative responses was between 25 percent and 63 percent.

On three of the four questions where the school's administration was viewed negatively, differences among grade means were not statistically significant.

Statistically significant differences among means did, however, occur in responses to the way the administration included students in making decisions about matters directly affecting students. Half of the seniors and juniors expressed dissatisfaction in comparison to only a third of the two lower grade groups. Differences in mean scores between grades were significant for each of the lower grade groups with each of the upper grade groups. The test for linearity was statistically significant on this as well as two of the other three negatively appraised questions.

Consistently across the four grades, about half of the students were of the opinion that the school's administration seldom or never seemed to really care for them as individuals. Positive feelings were offered by two-fifths of the ninth grade students. Only one-fifth of the eleventh graders felt the administration usually or always cared.

A second question, tapping the students' perception of the administration's concern for them, asked how much personal encouragement was given by the administration regarding the student's schoolwork. Again, a consistent negative evaluation was given across grades, ranging from half of the seniors to two-fifths of the freshmen. Positive responses were given by about one-third of the lower grade groups and by one-fourth of the upper grade groups. Mean scores among the grades were not statistically significant, but there was a statistically significant relationship of grade and response as measured by the test for linearity.

The fourth question, where negative perceptions were found, asked how often the administration talked to the students as individuals. Two-thirds answered either, never, or seldom. As many as 72 percent of the seniors, but no less than 58 percent of the freshmen adhered to this opinion. Only one-fifth of the upper grade students and one-fourth of the lower grade students reported communication as usually or as always on all occasions.

The two questions where the proportion of favorable responses outweighed the unfavorable dealt with administrative response to student problems or student suggestions and with the way administration generally treated students.

Half of the underclass students indicated that within the day, if not immediately, they could communicate a problem or make a suggestion to the administration. While approximately half of the seniors shared these opinions, only a third of the juniors agreed. Differences between the mean scores of the juniors and those of the freshmen and sophomores were statistically significant. The test for linearity was not statistically significant.

Just over a third of the students expressed satisfaction with the way they were treated by the administration. Differences among mean scores were statistically significant as was the test for linearity, and between grade means, statistically significant differences were found between juniors and each of the underclass groups, respectively. The juniors expressed the least favorable opinions: 19 percent were satisfied, 42 percent were dissatisfied. Most positive were freshmen: 46 percent, satisfied; 17 percent, dissatisfied.

It is of passing interest to note that the percentage of students expressing the opinion that they were neither satisfied nor dissatisfied, a moderate position, outnumbered the percentages expressing either positive or negative opinions.

## Comparison of Student Responses For the Last Three Years

### School Descriptor Categories

To test for changes in the opinions of Northwestern high school students over time, the responses to each question from each of the three surveys were tabulated and chi-square tests were computed for each of thirty-four tabular displays (see Appendix B).

Ten of the chi square test results were significant at the .05 level. Of these, eight were derived from tables recording a worsening of student attitudes, and two, an improvement in student attitudes.

When viewed in terms of school descriptor categories (see Table 4), the chi-square test results were not evenly distributed among the six descriptors. None of the six tabular displays, related to school administration, had statistically significant chi-square test results, but for all four school morale tables, the variations in the frequency distributions over time were statistically significant with the direction of attitudinal change shifting toward less positive responses. It should also be noted that school morale exhibited the greatest amount of volatility in the ranking of school descriptor categories by average percent of favorable responses (see Table 3). In 1982, school morale ranked second with a 65 percent average of favorable responses. In each of the next two years, the average percent was 54, and its rank had dropped to fourth. School administration, on the other hand, consistently ranked last and the opinions tabulated for all its constituent questions, across all four grades, for all three survey years, were unfavorable.

TABLE 4

NUMBER OF QUESTIONNAIRE ITEMS, NUMBER AND PERCENT OF ITEMS WITH STATISTICALLY SIGNIFICANT CHI-SQUARE TEST RESULTS AND OF THESE, THE NUMBER SHOWING IMPROVEMENT OR WORSENING, AND AVERAGE RANKING FOR THE LAST THREE YEARS PER SCHOOL DESCRIPTOR CATEGORY, 1982-1984

| School Descriptor Categories | Number Of Items Per Category | Items With Statistically Significant Chi-Square Test Results | | | | Average Rank For Last Three Years |
|---|---|---|---|---|---|---|
| | | No. | Percent | Number Showing Improvement | Number Showing Worsening | |
| Student Activities | 6 | 3 | 50% | 1 | 2 | 5 |
| Instruction | 8 | 1 | 13 | 1 | 0 | 3.5 |
| Curriculum | 5 | 1 | 20 | 0 | 1 | 1 |
| Guidance and Counseling | 5 | 1 | 20 | 0 | 1 | 2 |
| School Morale | 4 | 4 | 100 | 0 | 4 | 3.5 |
| School Administration | 6 | 0 | 0 | 0 | 0 | 6 |

Three of the six student activities tabular displays produced statistically significant chi-square tests. Of these, two recorded a decline in favorable student attitudes. The average rank of this category, for the last three years, was fifth or next to last.

In each of the three remaining school descriptor categories, a single chi-square test result was statistically significant. Where this occurred, one tabular display registered a decrease in unfavorable attitudes over time (instruction) and two tabular displays documented a decrease in favorable student attitudes (curriculum, and guidance and counseling).

Thus, for two of the six school descriptor categories the proportions of statistically significant chi-square test results were substantial: all school morale and half of the school administration tabular displays. The direction of change was mostly toward the unfavorable.

For each school descriptor category, a summary discussion will be limited to those tabular displays where the chi-square test results were statistically significant, and are listed below.

Student Activities

There were improvements in student attitudes on the question of how many activities that the student would like to participate in would the student participate. The proportions answering 'None' decreased; the proportions answering 'All' or 'About half' increased in the 1984 frequency distributions over those of 1983 and 1982, respectively. A chi-square test of differences between 1983 and 1984 response frequencies resulted in a slightly higher significance level statistic[1] from that derived in testing the three sets of frequencies.

[1]These chi-square test results are not included in this report, but they are available upon request.

The decrease in the proportion of students in 1982 expressing satisfaction with both the variety and quality of student activities offered at Northwestern high school was larger in 1983 than it was in 1984, but differences between the 1983 and 1984 response frequencies, based on chi-square test results, were still significant at less than the .05 level.

Using mean scores as an index of the direction of change among the three annual response frequencies, we find that for all six questions in this grouping, the mean scores in 1983 decreased from those of 1982, but for the questions where students expressed significantly less satisfaction, the decrease was .3.

Instruction

The decrease in the proportions of students in 1983 and 1984 over that of 1982, who said that 'None' of their teachers made sure students understood what they taught in class, accounted for over half of the total chi-square value. Differences between 1983 and 1984 response frequencies were not statistically significant. Mean scores for the three years were, in yearly succession, 3.6, 3.6, and 3.7.

Curriculum

The marked decrease in the proportions of students in 1983 and 1984 over that of 1982, who felt that 'All' of the things they should be learning right now were being taught at Northwestern, and the increase in the proportions in the latter two years of those answering 'About half,' contributed over three-fourths to the total chi-square value. Differences between 1983 and 1984 response frequencies were not statistically significant.

Guidance and Counseling

A dramatic change in the decreasing satisfaction with the way students felt their counselors treated them occurred in 1983. The disparity between observed and expected frequencies of those who were 'Very satisfied' in both 1982 and 1983 distributions contributed to half of the total chi-square value. A mean score of 3.9 in 1982 was followed by a drop to 3.6 in 1983, but in 1984, there was an improvement—a mean score of 3.8. However, frequency differences between 1983 and 1984 responses were not statistically significant.

School Morale

For all three-year frequency distribution comparisons of all four questions relating to school morale, chi-square test results were statistically significant. There was a decrease in positive student attitudes in 1984 as compared to 1982. However, on three of the four questions, there were clearly improvements in students' attitudes in 1984 over those expressed in 1983, both in the distribution of frequency counts and mean scores. On the fourth question, improvements were made, albeit slight. Yet, for all four, the chi-square test results for differences between 1983 and 1984 frequency distributions were statistically significant.

## Summary of Statistical Testing Results

### Statistical Significance By Year

To test for variations in the number of statistically significant one-way analysis of variance tests and tests for linearity among the four grades for the three survey years, the number of statistically significant and non-significant test results were tabulated and chi-square statistics were computed for both tabulations. Tabulations and test results are presented in Tables 5 and 6 (see Appendix C for the source of these tabulations).

In both comparisons, variations were statistically significant. While 26 percent of one-way analysis of variance tests were statistically significant in both 1982 and 1983 surveys, 59 percent of the tests were in 1984. Thus, there was a marked increase in response differentiation among grade groups at Northwestern to the questions on the survey instrument. This differentiation during the most recent survey is underscored by a similar marked increase in the proportion of tests for linearity that were statistically significant: 68 percent (1984), 29 percent (1983, 1982).

### Statistical Significance By School Descriptor Categories

To test for variations in the number of statistically significant test results among the school descriptor categories, frequencies of significant and non-significant one-way analysis of variance test results and results of test for linearity for all three survey years were tabulated and chi-square statistics were computed with the results presented in Tables 7 and 8.

Variations among school descriptor categories were most pronounced among instruction and school morale questions. Eighty-three percent of the twenty-four one-way analysis of variance tests for instruction questions for the

TABLE 5

NUMBER AND PERCENT OF ONE-WAY ANALYSIS OF VARIANCE TESTS, AMONG GRADES NINE THROUGH TWELVE, THAT WERE OR WERE NOT STATISTICALLY SIGNIFICANT AT THE .05 LEVEL BY SURVEY YEAR

| Year | One-Way Analysis of Variance Tests That Were Statistically Significant | | Not Statistically Significant | | Total Number |
|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | |
| 1982 | 9 | 26% | 25 | 74% | 34 |
| 1983 | 9 | 26 | 25 | 74 | 34 |
| 1984 | 20 | 59 | 14 | 41 | 34 |
| Total | 38 | 37 | 64 | 63 | 102 |

$x^2 = 10.15$ df = 2 P = .01

TABLE 6

NUMBER AND PERCENT OF LINEARITY TESTS, AMONG GRADES NINE THROUGH TWELVE, THAT WERE OR WERE NOT STATISTICALLY SIGNIFICANT AT THE .05 LEVEL BY SURVEY YEAR

| Year | Linearity Tests That Were Statistically Significant | | Not Statistically Significant | | Total Number |
|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | |
| 1982 | 10 | 29% | 24 | 71% | 34 |
| 1983 | 10 | 29 | 24 | 71 | 34 |
| 1984 | 23 | 68 | 11 | 32 | 34 |
| Total | 43 | 42 | 59 | 58 | 102 |

$x^2 = 13.58$ df = 2 P = $< .01$

TABLE 7

NUMBER AND PERCENT OF ONE-WAY ANALYSIS OF VARIANCE TESTS, AMONG GRADES NINE THROUGH TWELVE, THAT WERE OR WERE NOT STATISTICALLY SIGNIFICANT AT THE .05 LEVEL FOR ALL THREE SURVEY YEARS BY SCHOOL DESCRIPTOR CATEGORIES

| School Descriptor Categories | One-Way Analysis of Variance Tests That Were Statistically Significant | | Not Statistically Significant | | Total Number |
|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | |
| Student Activities | 6 | 33% | 12 | 67% | 18 |
| Instruction | 2 | 8 | 22 | 83 | 24 |
| Curriculum | 7 | 47 | 8 | 53 | 15 |
| Guidance & Counseling | 7 | 47 | 8 | 53 | 15 |
| School Morale | 9 | 75 | 3 | 25 | 12 |
| School Administration | 7 | 39 | 11 | 61 | 18 |
| Total | 38 | 37 | 64 | 63 | 102 |

$x^2 = 17.17$ df = 5 P = $< .01$

TABLE 8

NUMBER AND PERCENT OF LINEARITY TESTS, AMONG GRADES NINE THROUGH TWELVE, THAT WERE OR WERE NOT STATISTICALLY SIGNIFICANT AT THE .05 LEVEL FOR ALL THREE SURVEY YEARS BY SCHOOL DESCRIPTOR CATEGORIES

| School Descriptor Categories | Linearity Tests That Were Statistically Significant | | Not Statistically Significant | | Total Number |
|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | |
| Student Activities | 8 | 44% | 10 | 56% | 18 |
| Instruction | 8 | 33 | 16 | 67 | 24 |
| Curriculum | 8 | 53 | 7 | 47 | 15 |
| Guidance & Counseling | 5 | 33 | 10 | 67 | 15 |
| School Morale | 7 | 58 | 5 | 42 | 12 |
| School Administration | 7 | 39 | 11 | 61 | 18 |
| Total | 43 | 42 | 59 | 58 | 102 |

$x^2 = 4.29$ df = 5 P = NS

three survey years were not statistically significant. The average for all six descriptor categories was 63 percent.

Seventy-five percent of the twelve one-way analysis of variance tests for school morale questions were statistically significant for the three survey years. The average for all six descriptor categories was 37 percent.

The variations among the six school descriptor categories in the frequencies of significant and non-significant one-way analysis of variance tests results were statistically significant. However, variations in the number of significant and non-significant tests of linearity among the six descriptor categories were not significantly different. What variation there was, was confined to instruction and school morale test results.

DS/fc:10/84

# APPENDIX A

## A. STUDENT ACTIVITIES

**In how many of the student activities that you participate in are the students involved in planning the activity?**

**(Student Opinion Question 1)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Many | All | | |
| 9 | 27% | 31% | 29% | 7% | 7% | (119) | 2.4 |
| 10 | 24 | 30 | 25 | 14 | 8 | (89) | 2.5 |
| 11 | 19 | 31 | 24 | 25 | 2 | (98) | 2.6 |
| 12 | 15 | 27 | 32 | 15 | 11 | (81) | 2.8 |
| Total | 22 | 30 | 27 | 15 | 7 | (387) | 2.5 |

One-way analysis of variance test for the difference among grade means was not significant at the .05 level.

**In how many of the activities of your school would you feel that you would be accepted?**

**(Student Opinion Question 2)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 9 | 2% | 27% | 25% | 36% | 11% | (123) | 3.3 |
| 10 | 0 | 16 | 24 | 46 | 14 | (90) | 3.6 |
| 11 | 1 | 21 | 34 | 27 | 17 | (98) | 3.4 |
| 12 | 1 | 20 | 26 | 31 | 22 | (81) | 3.5 |
| Total | 1 | 21 | 27 | 35 | 16 | (392) | 3.4 |

One-way analysis of variance test for the difference among grade means was not significant at the .05 level.

How many student activities (clubs, parties, plays, athletics, etc.) that you would like to participate in, do you participate in?

(Student Opinion Question 3)

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 9 | 16% | 39% | 21% | 16% | 9% | (122) | 2.6 |
| 10 | 18 | 21 | 22 | 26 | 13 | (90) | 3.0 |
| 11 | 10 | 26 | 31 | 21 | 12 | (98) | 3.0 |
| 12 | 15 | 31 | 21 | 16 | 17 | (81) | 2.9 |
| Total | 15 | 30 | 24 | 20 | 13 | (391) | 2.9 |

One-way analysis of variance test for the difference among grade means was not significant at the .05 level.

How many sponsors of the activities that you participate in seem well suited to the activity?

(Student Opinion Question 5)

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 9 | 14% | 23% | 16% | 23% | 24% | (121) | 3.2 |
| 10 | 17 | 17 | 18 | 28 | 20 | (89) | 3.2 |
| 11 | 6 | 29 | 25 | 32 | 9 | (98) | 3.1 |
| 12 | 10 | 17 | 36 | 24 | 14 | (81) | 3.1 |
| Total | 12 | 22 | 23 | 27 | 17 | (389) | 3.2 |

One-way analysis of variance test for the difference among grade means was not significant at the .05 level.

**How satisfied are you with the variety of student activities that your school offers?**

**(Student Opinion Question 33)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Dissatisfied | Dissatisfied | Neither S Nor D | Satisfied | Very Satisfied | | |
| 9 | 1% | 3% | 20% | 52% | 24% | (111) | 4.0 |
| 10 | 2 | 5 | 26 | 45 | 22 | (87) | 3.8 |
| 11 | 3 | 19 | 43 | 30 | 5 | (98) | 3.1 |
| 12 | 5 | 13 | 35 | 40 | 8 | (80) | 3.3 |
| Total | 3 | 10 | 31 | 42 | 15 | (376) | 3.6 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and eleven, nine and twelve and ten and eleven, ten and twelve.

**How satisfied are you with the quality of student activities that your school offers?**

**(Student Opinion Question 34)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Dissatisfied | Dissatisfied | Neither S Nor D | Satisfied | Very Satisfied | | |
| 9 | 2% | 1% | 33% | 46% | 18% | (110) | 3.8 |
| 10 | 2 | 6 | 27 | 55 | 9 | (85) | 3.6 |
| 11 | 5 | 18 | 46 | 23 | 7 | (95) | 3.1 |
| 12 | 3 | 15 | 37 | 39 | 6 | (79) | 3.3 |
| Total | 3 | 10 | 36 | 41 | 11 | (369) | 3.5 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and eleven, nine and twelve and ten and eleven.

B. INSTRUCTION

How many of your teachers seem to care if you learn the subject they teach?

(Student Opinion Question 6)

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 9 | 3% | 20% | 9% | 27% | 42% | (123) | 3.8 |
| 10 | 2 | 19 | 20 | 32 | 27 | (90) | 3.6 |
| 11 | 4 | 20 | 22 | 32 | 21 | (98) | 3.5 |
| 12 | 4 | 16 | 28 | 32 | 20 | (81) | 3.5 |
| Total | 3 | 19 | 19 | 30 | 29 | (392) | 3.6 |

One-way analysis of variance test for the difference among grade means was not significant at the .05 level.

How often do your teachers clearly explain what to do on assignments?

(Student Opinion Question 7)

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Never | Seldom | About Half The Time | Usually | Always | | |
| 9 | 1% | 13% | 16% | 32% | 38% | (123) | 3.9 |
| 10 | 1 | 14 | 23 | 31 | 30 | (90) | 3.7 |
| 11 | 0 | 12 | 25 | 39 | 25 | (98) | 3.8 |
| 12 | 6 | 10 | 21 | 41 | 22 | (81) | 3.6 |
| Total | 2 | 13 | 21 | 35 | 30 | (392) | 3.8 |

One-way analysis of variance test for the difference among grade means was not significant at the .05 level.

**How much help do your teachers usually give you with your schoolwork?**

**(Student Opinion Question 8)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None I Need | Little I Need | About Half I Need | Most I Need | All I Need | | |
| 9 | 1% | 12% | 20% | 38% | 30% | (122) | 3.9 |
| 10 | 3 | 14 | 19 | 39 | 24 | (90) | 3.7 |
| 11 | 3 | 15 | 18 | 41 | 22 | (98) | 3.6 |
| 12 | 5 | 9 | 25 | 42 | 20 | (81) | 3.6 |
| Total | 3 | 13 | 20 | 40 | 25 | (391) | 3.7 |

One-way analysis of variance test for the difference among grade means was not significant at the .05 level.

**How many of your teachers make sure you understand what they teach in class?**

**(Student Opinion Question 9)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 9 | 0% | 18% | 15% | 33% | 35% | (123) | 3.8 |
| 10 | 2 | 18 | 19 | 41 | 20 | (90) | 3.6 |
| 11 | 1 | 15 | 28 | 35 | 21 | (98) | 3.6 |
| 12 | 4 | 20 | 25 | 28 | 24 | (81) | 3.5 |
| Total | 2 | 18 | 21 | 34 | 26 | (392) | 3.7 |

One-way analysis of variance test for the difference among grade means was not significant at the .05 level.

How often do your teachers clearly explain how assignments are to be done?

(Student Opinion Question 10)

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Never | Seldom | About Half The Time | Usually | Always | | |
| 9 | 3% | 4% | 15% | 40% | 37% | (123) | 4.0 |
| 10 | 2 | 8 | 28 | 38 | 24 | (90) | 3.7 |
| 11 | 2 | 12 | 17 | 38 | 31 | (97) | 3.8 |
| 12 | 3 | 9 | 33 | 30 | 26 | (81) | 3.7 |
| Total | 3 | 8 | 22 | 37 | 30 | (391) | 3.8 |

One-way analysis of variance test for the difference among grade means was not significant at the .05 level.

How many of your teachers are willing to give students individual help outside of class time?

(Student Opinion Question 11)

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 9 | 12% | 27% | 18% | 29% | 15% | (123) | 3.1 |
| 10 | 13 | 27 | 16 | 29 | 16 | (90) | 3.1 |
| 11 | 8 | 28 | 23 | 32 | 9 | (97) | 3.1 |
| 12 | 7 | 31 | 24 | 25 | 14 | (81) | 3.1 |
| Total | 11 | 28 | 20 | 29 | 13 | (391) | 3.1 |

One-way analysis of variance test for the difference among grade means was not significant at the .05 level.

How many of your teachers give you enough personal encouragement in your schoolwork?

(Student Opinion Question 12)

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 9 | 14% | 28% | 18% | 26% | 14% | (122) | 3.0 |
| 10 | 11 | 32 | 30 | 17 | 10 | (90) | 2.8 |
| 11 | 10 | 26 | 18 | 35 | 11 | (97) | 3.1 |
| 12 | 12 | 36 | 22 | 22 | 7 | (81) | 2.8 |
| Total | 12 | 30 | 22 | 25 | 11 | (390) | 2.9 |

One-way analysis of variance test for the difference among grade means was not significant at the .05 level.

In how many of your courses are you satisfied with the methods used to teach the courses?

(Student Opinion Question 25)

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 9 | 3% | 16% | 23% | 36% | 21% | (117) | 3.6 |
| 10 | 0 | 18 | 24 | 42 | 16 | (88) | 3.6 |
| 11 | 3 | 28 | 33 | 25 | 11 | (97) | 3.1 |
| 12 | 6 | 16 | 36 | 32 | 10 | (81) | 3.2 |
| Total | 3 | 20 | 29 | 34 | 15 | (383) | 3.4 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and eleven.

C. CURRICULUM

How much of what you are studying do you think will be useful to you in everyday living?

(Student Opinion Question 24)

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Less Than Half | About Half | Most | Every-thing | | |
| 9 | 2% | 8% | 24% | 29% | 37% | (120) | 3.9 |
| 10 | 2 | 8 | 27 | 42 | 21 | (88) | 3.7 |
| 11 | 1 | 18 | 35 | 29 | 17 | (96) | 3.4 |
| 12 | 6 | 11 | 38 | 31 | 14 | (81) | 3.3 |
| Total | 3 | 11 | 31 | 33 | 23 | (385) | 3.6 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and twelve, nine and eleven.

Regardless of what your grades may be, in how many of your school subjects would you say that you are "learning a lot" this year?

(Student Opinion Question 26)

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Less Than Half | About Half | Most | All | | |
| 9 | 2% | 9% | 21% | 40% | 29% | (118) | 3.9 |
| 10 | 1 | 7 | 21 | 43 | 28 | (88) | 3.9 |
| 11 | 2 | 13 | 30 | 41 | 13 | (97) | 3.5 |
| 12 | 3 | 8 | 30 | 35 | 25 | (80) | 3.7 |
| Total | 2 | 9 | 25 | 40 | 24 | (383) | 3.8 |

One-way analysis of variance test for the difference among grade means was significant at the .02 level.

The t-Test comparisons between grade means were significant at the .05 level for grades ten and eleven.

**How many of the things that you should be learning right now are being taught in your school?**

**(Student Opinion Question 27)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 9 | 2% | 10% | 20% | 38% | 30% | (115) | 3.8 |
| 10 | 1 | 9 | 31 | 43 | 16 | (87) | 3.6 |
| 11 | 2 | 21 | 38 | 27 | 12 | (98) | 3.3 |
| 12 | 6 | 20 | 35 | 33 | 6 | (81) | 3.1 |
| Total | 3 | 15 | 30 | 35 | 17 | (381) | 3.5 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and twelve, nine and eleven and ten and twelve.

**All things considered, how much do you think you are learning from your schoolwork?**

**(Student Opinion Question 28)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Much Less Than I Can | Somewhat Less Than I Can | About Half Of What I Can | Almost All I Can | All That I Can | | |
| 9 | 2% | 5% | 25% | 42% | 25% | (114) | 3.8 |
| 10 | 1 | 6 | 19 | 53 | 21 | (88) | 3.9 |
| 11 | 6 | 17 | 34 | 29 | 14 | (98) | 3.3 |
| 12 | 8 | 5 | 36 | 44 | 8 | (80) | 3.4 |
| Total | 4 | 8 | 28 | 42 | 18 | (380) | 3.6 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and eleven, nine and twelve and ten and eleven, ten and twelve.

In general, how well satisfied are you with the variety of the subjects that your school offers?

(Student Opinion Question 32)

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Dis-satisfied | Dis-satisfied | Neither S Nor D | Satisfied | Very Satisfied | | |
| 9 | 1% | 3% | 26% | 49% | 22% | (113) | 3.9 |
| 10 | 2 | 5 | 22 | 59 | 13 | (87) | 3.7 |
| 11 | 2 | 24 | 33 | 33 | 9 | (98) | 3.2 |
| 12 | 4 | 15 | 28 | 41 | 13 | (80) | 3.4 |
| Total | 2 | 11 | 27 | 45 | 15 | (378) | 3.6 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and eleven, nine and twelve and ten and eleven.

## D. GUIDANCE AND COUNSELING PROGRAM

**How much help does your counselor give you in the selection of a college, vocational, or trade school?**

**(Student Opinion Question 13)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None I Need | Little I Need | About Half I Need | Most I Need | All I Need | | |
| 9 | 18% | 11% | 6% | 16% | 50% | (123) | 3.7 |
| 10 | 7 | 8 | 17 | 26 | 43 | (90) | 3.9 |
| 11 | 6 | 31 | 22 | 20 | 20 | (98) | 3.2 |
| 12 | 15 | 11 | 11 | 25 | 38 | (81) | 3.6 |
| Total | 12 | 15 | 14 | 21 | 39 | (392) | 3.6 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades ten and eleven.

**How much help does your counselor give you in the selection of courses?**

**(Student Opinion Question 14)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None I Need | Little I Need | About Half I Need | Most I Need | All I Need | | |
| 9 | 7% | 8% | 7% | 21% | 57% | (122) | 4.1 |
| 10 | 6 | 6 | 3 | 28 | 58 | (90) | 4.3 |
| 11 | 7 | 24 | 22 | 22 | 25 | (98) | 3.3 |
| 12 | 11 | 9 | 20 | 24 | 37 | (81) | 3.7 |
| Total | 8 | 12 | 13 | 23 | 45 | (391) | 3.9 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and eleven and ten and eleven, ten and twelve.

**In general, are you satisfied with the way you are treated by your counselor?**

**(Student Opinion Question 15)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Dis-satisfied | Dis-satisfied | Neither S Nor D | Satisfied | Very Satisfied | | |
| 9 | 4% | 7% | 14% | 33% | 43% | (122) | 4.0 |
| 10 | 3 | 7 | 16 | 33 | 41 | (90) | 4.0 |
| 11 | 8 | 16 | 32 | 28 | 16 | (98) | 3.3 |
| 12 | 10 | 5 | 24 | 24 | 38 | (81) | 3.8 |
| Total | 6 | 9 | 21 | 30 | 35 | (391) | 3.8 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and eleven and ten and eleven.

**How much help does your counselor give you in the selection of a vocation?**

**(Student Opinion Question 16)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None I Need | Little I Need | About Half I Need | Most I Need | All I Need | | |
| 9 | 20% | 12% | 14% | 20% | 35% | (122) | 3.4 |
| 10 | 7 | 13 | 17 | 30 | 34 | (88) | 3.7 |
| 11 | 24 | 24 | 14 | 28 | 10 | (97) | 3.8 |
| 12 | 20 | 15 | 12 | 26 | 27 | (81) | 3.3 |
| Total | 18 | 16 | 14 | 25 | 27 | (388) | 3.3 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and eleven and ten and eleven.

**How much help does your counselor give you in solving your personal problems?**

(Student Opinion Question 17)

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None I Need | Little I Need | About Half I Need | Most I Need | All I Need | | |
| 9 | 30% | 9% | 8% | 20% | 33% | (121) | 3.2 |
| 10 | 27 | 13 | 14 | 20 | 25 | (84) | 3.0 |
| 11 | 33 | 16 | 27 | 16 | 9 | (97) | 2.5 |
| 12 | 38 | 8 | 16 | 20 | 19 | (80) | 2.8 |
| Total | 32 | 11 | 16 | 19 | 22 | (382) | 2.9 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and eleven.

## E. SCHOOL MORALE

**How often do you feel that you "belong" in your school?**

**(Student Opinion Question 4)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Never | Seldom | About Half The Time | Usually | Always | | |
| 9 | 7% | 6% | 21% | 19% | 48% | (122) | 4.0 |
| 10 | 6 | 6 | 9 | 32 | 48 | (90) | 4.1 |
| 11 | 7 | 13 | 26 | 25 | 29 | (97) | 3.5 |
| 12 | 9 | 5 | 25 | 19 | 43 | (81) | 3.8 |
| Total | 7 | 7 | 20 | 23 | 42 | (390) | 3.9 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades ten and eleven.

**In general, how proud or ashamed of your school are you?**

**(Student Opinion Question 29)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Ashamed | Ashamed | Neither P Nor A | Proud | Very Proud | | |
| 9 | 7% | 7% | 32% | 33% | 22% | (114) | 3.6 |
| 10 | 2 | 2 | 45 | 26 | 24 | (87) | 3.7 |
| 11 | 5 | 22 | 38 | 24 | 11 | (98) | 3.1 |
| 12 | 8 | 11 | 36 | 29 | 16 | (80) | 3.4 |
| Total | 6 | 11 | 37 | 28 | 19 | (379) | 3.4 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and eleven and ten and eleven.

How would you rate "school spirit" at your school? (Consider students' support of athletic teams, charity drives, class money-raising projects, etc.)

(Student Opinion Question 30)

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Poor | Poor | Adequate | Good | Excellent | | |
| 9 | 8% | 3% | 25% | 42% | 22% | (114) | 3.7 |
| 10 | 5 | 5 | 26 | 34 | 32 | (86) | 3.8 |
| 11 | 7 | 28 | 43 | 16 | 6 | (98) | 2.9 |
| 12 | 15 | 10 | 34 | 29 | 13 | (80) | 3.1 |
| Total | 9 | 11 | 32 | 31 | 18 | (378) | 3.4 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and eleven, nine and twelve and ten and eleven, ten and twelve.

In general, are you satisfied with your school?

(Student Opinion Question 31)

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Dissatisfied | Dissatisfied | Neither S Nor D | Satisfied | Very Satisfied | | |
| 9 | 7% | 7% | 27% | 45% | 15% | (113) | 3.6 |
| 10 | 1 | 6 | 33 | 47 | 13 | (87) | 3.6 |
| 11 | 4 | 37 | 25 | 24 | 11 | (98) | 3.0 |
| 12 | 6 | 10 | 33 | 36 | 15 | (80) | 3.4 |
| Total | 5 | 15 | 29 | 38 | 14 | (378) | 3.4 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and eleven and ten and eleven.

## F. SCHOOL ADMINISTRATION

**If you had a problem or suggestion for the administration, how long would you have to wait to talk to a member of the administration?**

**(Student Opinion Question 18)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Could Not Talk At All | Within A Month | Within A Week | Within The Day | Immediately | | |
| 9 | 16% | 7% | 26% | 36% | 15% | (122) | 3.3 |
| 10 | 12 | 6 | 31 | 46 | 6 | (87) | 3.3 |
| 11 | 18 | 20 | 32 | 27 | 4 | (97) | 2.8 |
| 12 | 11 | 10 | 33 | 39 | 8 | (80) | 3.2 |
| Total | 15 | 10 | 30 | 37 | 9 | (386) | 3.1 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades nine and eleven and ten and eleven.

**In general, are you satisfied with the way you are treated by the administration?**

**(Student Opinion Question 19)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Dissatisfied | Dissatisfied | Neither S Nor D | Satisfied | Very Satisfied | | |
| 9 | 9% | 8% | 38% | 37% | 9% | (120) | 3.3 |
| 10 | 10 | 7 | 40 | 39 | 3 | (89) | 3.2 |
| 11 | 15 | 27 | 40 | 17 | 2 | (96) | 2.6 |
| 12 | 18 | 6 | 41 | 30 | 5 | (80) | 3.0 |
| Total | 13 | 12 | 40 | 31 | 5 | (385) | 3.0 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades ten and eleven and nine and eleven.

**In general, how often does the administration seem to really care about you as an individual?**

**(Student Opinion Question 20)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Never | Seldom | About Half The Time | Usually | Always | | |
| 9 | 20% | 25% | 17% | 23% | 15% | (120) | 2.9 |
| 10 | 18 | 33 | 20 | 27 | 2 | (89) | 2.6 |
| 11 | 20 | 31 | 28 | 17 | 4 | (96) | 2.5 |
| 12 | 26 | 29 | 18 | 19 | 9 | (80) | 2.6 |
| Total | 21 | 29 | 21 | 22 | 8 | (385) | 2.7 |

One-way analysis of variance test for the difference among grade means was not significant at the .05 level.

**Are you satisfied with the way the administration includes the students in making decisions about matters which directly affect the students (dress code, assemblies, etc.)?**

**(Student Opinion Question 21)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Dis-satisfied | Dis-satisfied | Neither S Nor D | Satisfied | Very Satisfied | | |
| 9 | 16% | 12% | 26% | 30% | 17% | (121) | 3.2 |
| 10 | 14 | 16 | 33 | 29 | 8 | (90) | 3.0 |
| 11 | 25 | 27 | 33 | 10 | 5 | (97) | 2.4 |
| 12 | 28 | 22 | 28 | 20 | 1 | (81) | 2.4 |
| Total | 20 | 19 | 30 | 23 | 9 | (389) | 2.8 |

One-way analysis of variance test for the difference among grade means was significant at the .01 level.

The t-Test comparisons between grade means were significant at the .05 level for grades ten and eleven, ten and twelve and nine and eleven, nine and twelve.

**How much personal encouragement does the administration give you concerning your schoolwork?**

**(Student Opinion Question 22)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None I Need | Little I Need | About Half I Need | Most I Need | All I Need | | |
| 9 | 20% | 22% | 25% | 17% | 16% | (119) | 2.9 |
| 10 | 23 | 26 | 21 | 24 | 7 | (88) | 2.7 |
| 11 | 24 | 22 | 28 | 21 | 6 | (97) | 2.6 |
| 12 | 30 | 20 | 28 | 19 | 4 | (81) | 2.5 |
| Total | 24 | 22 | 26 | 20 | 9 | (385) | 2.7 |

One-way analysis of variance test for the difference among grade means was not significant at the .05 level.

**Does the administration talk to you as an individual on all occasions?**

**(Student Opinion Question 23)**

| Grade Level | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Never | Seldom | About Half The Time | Usually | Always | | |
| 9 | 38% | 20% | 17% | 16% | 9% | (120) | 2.4 |
| 10 | 33 | 28 | 18 | 17 | 5 | (89) | 2.3 |
| 11 | 27 | 35 | 21 | 16 | 2 | (97) | 2.3 |
| 12 | 37 | 35 | 10 | 15 | 4 | (81) | 2.1 |
| Total | 34 | 29 | 17 | 16 | 5 | (387) | 2.3 |

One-way analysis of variance test for the difference among grade means was not significant at the .05 level.

DS/fc:7/84

# APPENDIX B

## A. STUDENT ACTIVITIES

In how many of the student activities that you participate in are the students involved in planning the activity?

(Student Opinion Question 1)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Many | All | | |
| 1982 | 22% | 28% | 23% | 19% | 8% | (276) | 2.6 |
| 1983 | 24 | 27 | 29 | 16 | 5 | (423) | 2.5 |
| 1984 | 21 | 31 | 25 | 16 | 7 | (462) | 2.6 |
| Total | 22 | 29 | 26 | 17 | 6 | (1161) | |

$x^2 = 8.90$ df = 8 P = NS

In how many of the activities of your school would you feel that you would be accepted?

(Student Opinion Question 2)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 1982 | 1% | 16% | 30% | 33% | 19% | (276) | 3.5 |
| 1983 | 3 | 20 | 28 | 34 | 16 | (424) | 3.4 |
| 1984 | 1 | 22 | 26 | 36 | 15 | (468) | 3.4 |
| Total | 2 | 20 | 28 | 35 | 16 | (1168) | |

$x^2 = 10.17$ df = 8 P = NS

How many student activities (clubs, parties, plays, athletics, etc.) that you would like to participate in, do you participate in?

(Student Opinion Question 3)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 1982 | 20% | 33% | 16% | 23% | 9% | (276) | 2.7 |
| 1983 | 23 | 34 | 16 | 18 | 9 | (423) | 2.6 |
| 1984 | 16 | 31 | 22 | 19 | 12 | (467) | 2.8 |
| Total | 19 | 33 | 19 | 20 | 10 | (1165) | |

$x^2 = 16.29$ df = 8 P = .04

How many sponsors of the activities that you participate in seem well suited to the activity?

(Student Opinion Question 5)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 1982 | 15% | 16% | 23% | 30% | 17% | (276) | 3.2 |
| 1983 | 13 | 22 | 20 | 29 | 16 | (418) | 3.1 |
| 1984 | 12 | 20 | 24 | 27 | 18 | (464) | 3.2 |
| Total | 13 | 20 | 22 | 28 | 17 | (1158) | |

$x^2 = 7.28$ df = 8 P = NS

How satisfied are you with the variety of student activities that your school offers?

(Student Opinion Question 33)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Dissatisfied | Dissatisfied | Neither S Nor D | Satisfied | Very Satisfied | | |
| 1982 | 2% | 11% | 24% | 44% | 19% | (265) | 3.7 |
| 1983 | 4 | 13 | 35 | 39 | 9 | (414) | 3.4 |
| 1984 | 2 | 11 | 28 | 43 | 15 | (451) | 3.6 |
| Total | 3 | 12 | 30 | 42 | 14 | (1130) | |

$x^2 = 23.60$ df = 8 $P < .01$

How satisfied are you with the quality of student activities that your school offers?

(Student Opinion Question 34)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Dissatisfied | Dissatisfied | Neither S Nor D | Satisfied | Very Satisfied | | |
| 1982 | 4% | 8% | 28% | 45% | 16% | (264) | 3.6 |
| 1983 | 5 | 11 | 39 | 39 | 7 | (401) | 3.3 |
| 1984 | 3 | 9 | 34 | 43 | 11 | (444) | 3.5 |
| Total | 4 | 10 | 34 | 42 | 11 | (1109) | |

$x^2 = 24.90$ df = 8 $P < .01$

B. INSTRUCTION

How many of your teachers seem to care if you learn the subject they teach?

(Student Opinion Question 6)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 1982 | 3% | 17% | 15% | 33% | 32% | (276) | 3.7 |
| 1983 | 3 | 22 | 19 | 30 | 27 | (424) | 3.6 |
| 1984 | 4 | 18 | 19 | 30 | 30 | (467) | 3.6 |
| Total | 3 | 19 | 18 | 31 | 29 | (1167) | |

$x^2 = 6.71$ df = 8 P = NS

How often do your teachers clearly explain what to do on assignments?

(Student Opinion Question 7)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Never | Seldom | About Half The Time | Usually | Always | | |
| 1982 | 0% | 14% | 21% | 31% | 34% | (276) | 3.8 |
| 1983 | 2 | 13 | 22 | 37 | 26 | (424) | 3.7 |
| 1984 | 2 | 12 | 20 | 35 | 31 | (468) | 3.8 |
| Total | 2 | 13 | 21 | 35 | 30 | (1168) | |

$x^2 = 10.95$ df = 8 P = NS

How much help do your teachers usually give you with your schoolwork?

(Student Opinion Question 8)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None I Need | Little I Need | About Half I Need | Most I Need | All I Need | | |
| 1982 | 4% | 15% | 25% | 34% | 22% | (276) | 3.6 |
| 1983 | 3 | 19 | 18 | 40 | 20 | (424) | 3.6 |
| 1984 | 3 | 13 | 19 | 40 | 24 | (467) | 3.7 |
| Total | 3 | 16 | 20 | 39 | 22 | (1167) | |

$x^2 = 12.31$ df = 8 P = NS

How many of your teachers make sure you understand what they teach in class?

(Student Opinion Question 9)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 1982 | 6% | 18% | 16% | 35% | 25% | (276) | 3.6 |
| 1983 | 2 | 21 | 20 | 32 | 25 | (421) | 3.6 |
| 1984 | 2 | 17 | 20 | 36 | 26 | (468) | 3.7 |
| Total | 3 | 19 | 19 | 34 | 25 | (1165) | |

$x^2 = 17.37$ df = 8 P = .03

How often do your teachers clearly explain <u>how</u> assignments are to be done?

(Student Opinion Question 10)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Never | Seldom | About Half The Time | Usually | Always | | |
| 1982 | 3% | 13% | 25% | 35% | 25% | (276) | 3.7 |
| 1983 | 2 | 12 | 21 | 40 | 25 | (422) | 3.8 |
| 1984 | 2 | 8 | 22 | 37 | 31 | (467) | 3.9 |
| Total | 2 | 11 | 22 | 38 | 27 | (1165) | |

$x^2 = 11.33$ df = 8 P = NS

How many of your teachers are willing to give students individual help outside of class time?

(Student Opinion Question 11)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 1982 | 13% | 30% | 23% | 21% | 13% | (275) | 2.9 |
| 1983 | 10 | 30 | 21 | 27 | 12 | (423) | 3.0 |
| 1984 | 12 | 28 | 19 | 27 | 14 | (467) | 3.0 |
| Total | 11 | 29 | 21 | 26 | 13 | (1165) | |

$x^2 = 6.6$ df = 8 P = NS

How many of your teachers give you enough personal encouragement in your schoolwork?

(Student Opinion Question 12)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 1982 | 16% | 32% | 18% | 26% | 9% | (274) | 2.8 |
| 1983 | 16 | 31 | 23 | 23 | 8 | (423) | 2.8 |
| 1984 | 13 | 29 | 22 | 26 | 11 | (465) | 2.9 |
| Total | 14 | 30 | 21 | 25 | 10 | (1162) | |

$x^2 = 7.49$ df = 8 P = NS

In how many of your courses are you satisfied with the methods used to teach the courses?

(Student Opinion Question 25)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 1982 | 2% | 13% | 25% | 44% | 16% | (269) | 3.6 |
| 1983 | 2 | 17 | 28 | 38 | 15 | (420) | 3.5 |
| 1984 | 3 | 19 | 27 | 35 | 16 | (458) | 3.4 |
| Total | 3 | 17 | 27 | 38 | 16 | (1147) | |

$x^2 = 6.95$ df = 8 P = NS

C. CURRICULUM

How much of what you are studying do you think will be useful to you in everyday living?

(Student Opinion Question 24)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Less Than Half | About Half | Most | Every-thing | | |
| 1982 | 1% | 13% | 25% | 39% | 22% | (270) | 3.7 |
| 1983 | 3 | 13 | 23 | 40 | 21 | (422) | 3.6 |
| 1984 | 3 | 10 | 30 | 33 | 24 | (460) | 3.6 |
| Total | 2 | 12 | 26 | 37 | 22 | (1152) | |

$x^2 = 13.24$ df = 8 P = NS

Regardless of what your grades may be, in how many of your school subjects would you say that you are "learning a lot" this year?

(Student Opinion Question 26)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Less Than Half | About Half | Most | All | | |
| 1982 | 3% | 8% | 20% | 43% | 26% | (270) | 3.8 |
| 1983 | 2 | 11 | 27 | 39 | 21 | (421) | 3.7 |
| 1984 | 2 | 9 | 25 | 41 | 24 | (458) | 3.8 |
| Total | 2 | 10 | 24 | 41 | 23 | (1149) | |

$x^2 = 7.61$ df = 8 P = NS

How many of the things that you should be learning right now are being taught in your school?

(Student Opinion Question 27)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None | Few | About Half | Most | All | | |
| 1982 | 3% | 13% | 19% | 39% | 26% | (267) | 3.7 |
| 1983 | 3 | 19 | 24 | 39 | 16 | (417) | 3.5 |
| 1984 | 3 | 16 | 29 | 34 | 19 | (456) | 3.5 |
| Total | 3 | 16 | 25 | 37 | 20 | (1140) | |

$x^2 = 22.18$ df = 8 $P < .01$

All things considered, how much do you think you are learning from your schoolwork?

(Student Opinion Question 28)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Much Less Than I Can | Somewhat Less Than I Can | About Half Of What I Can | Almost All I Can | All That I Can | | |
| 1982 | 2% | 8% | 26% | 42% | 22% | (269) | 3.7 |
| 1983 | 3 | 10 | 25 | 45 | 17 | (417) | 3.6 |
| 1984 | 4 | 9 | 27 | 41 | 19 | (455) | 3.6 |
| Total | 3 | 9 | 26 | 43 | 19 | (1141) | |

$x^2 = 6.78$ df = 8 P = NS

In general, how well satisfied are you with the variety of the subjects that your school offers?

(Student Opinion Question 32)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Dis-satisfied | Dis-satisfied | Neither S Nor D | Satisfied | Very Satisfied | | |
| 1982 | 2% | 8% | 20% | 53% | 17% | (264) | 3.8 |
| 1983 | 2 | 9 | 30 | 47 | 12 | (415) | 3.6 |
| 1984 | 2 | 12 | 25 | 46 | 16 | (453) | 3.6 |
| Total | 2 | 10 | 26 | 48 | 15 | (1132) | |

$x^2 = 12.89$ df = 8 P = NS

D. GUIDANCE AND COUNSELING PROGRAM

**How much help does your counselor give you in the selection of a college, vocational, or trade school?**

(Student Opinion Question 13)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None I Need | Little I Need | About Half I Need | Most I Need | All I Need | | |
| 1982 | 14% | 11% | 11% | 21% | 43% | (273) | 3.7 |
| 1983 | 14 | 14 | 15 | 21 | 37 | (419) | 3.5 |
| 1984 | 12 | 14 | 12 | 22 | 40 | (468) | 3.6 |
| Total | 13 | 13 | 13 | 22 | 39 | (1160) | |

$x^2 = 6.00$ df = 8 P = NS

**How much help does your counselor give you in the selection of courses?**

(Student Opinion Question 14)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None I Need | Little I Need | About Half I Need | Most I Need | All I Need | | |
| 1982 | 5% | 10% | 12% | 22% | 51% | (273) | 4.1 |
| 1983 | 7 | 14 | 15 | 24 | 40 | (421) | 3.8 |
| 1984 | 7 | 11 | 11 | 24 | 47 | (467) | 3.9 |
| Total | 6 | 12 | 13 | 24 | 45 | (1161) | |

$x^2 = 13.08$ df = 8 P = NS

In general, are you satisfied with the way you are treated by your counselor?

(Student Opinion Question 15)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Dis-satisfied | Dis-satisfied | Neither S Nor D | Satisfied | Very Satisfied | | |
| 1982 | 6% | 8% | 15% | 29% | 42% | (273) | 3.9 |
| 1983 | 8 | 10 | 22 | 31 | 28 | (422) | 3.6 |
| 1984 | 6 | 8 | 20 | 30 | 36 | (467) | 3.8 |
| Total | 7 | 9 | 19 | 30 | 35 | (1152) | |

$x^2 = 18.21$ df = 8 P = .02

How much help does your counselor give you in the selection of a vocation?

(Student Opinion Question 16)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None I Need | Little I Need | About Half I Need | Most I Need | All I Need | | |
| 1982 | 18% | 11% | 17% | 23% | 32% | (273) | 3.4 |
| 1983 | 19 | 12 | 16 | 26 | 27 | (420) | 3.3 |
| 1984 | 18 | 15 | 14 | 25 | 29 | (463) | 3.3 |
| Total | 18 | 13 | 15 | 25 | 29 | (1156) | |

$x^2 = 4.86$ df = 8 P = NS

How much help does your counselor give you in solving your personal problems?

(Student Opinion Question 17)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None I Need | Little I Need | About Half I Need | Most I Need | All I Need | | |
| 1982 | 31% | 9% | 15% | 24% | 21% | (271) | 2.9 |
| 1983 | 35 | 13 | 13 | 17 | 22 | (419) | 2.8 |
| 1984 | 30 | 11 | 14 | 21 | 24 | (456) | 3.0 |
| Total | 32 | 11 | 14 | 20 | 23 | (1146) | |

$x^2 = 10.30$ df = 8 P = NS

E. SCHOOL MORALE

How often do you feel that you "belong" in your school?

(Student Opinion Question 4)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Never | Seldom | About Half The Time | Usually | Always | | |
| 1982 | 5% | 10% | 11% | 19% | 54% | (274) | 4.1 |
| 1983 | 4 | 15 | 19 | 24 | 38 | (424) | 3.8 |
| 1984 | 7 | 9 | 20 | 22 | 43 | (466) | 3.8 |
| Total | 5 | 12 | 17 | 22 | 44 | (1164) | |

$x^2 = 32.25$ df = 8 $P < .01$

In general, how proud or ashamed of your school are you?

(Student Opinion Question 29)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Ashamed | Ashamed | Neither P Nor A | Proud | Very Proud | | |
| 1982 | 4% | 9% | 28% | 33% | 26% | (269) | 3.7 |
| 1983 | 7 | 8 | 48 | 26 | 11 | (413) | 3.3 |
| 1984 | 6 | 10 | 37 | 30 | 18 | (454) | 3.4 |
| Total | 6 | 9 | 39 | 29 | 17 | (1136) | |

$x^2 = 45.90$ df = 8 $P < .01$

How would you rate "school spirit" at your school? (Consider students' support of athletic teams, charity drives, class money-raising projects, etc.)

(Student Opinion Question 30)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Poor | Poor | Adequate | Good | Excellent | | |
| 1982 | 5% | 7% | 24% | 39% | 26% | (267) | 3.7 |
| 1983 | 11 | 15 | 34 | 30 | 11 | (416) | 3.2 |
| 1984 | 8 | 11 | 32 | 32 | 18 | (453) | 3.4 |
| Total | 8 | 12 | 31 | 33 | 17 | (1136) | |

$x^2 = 47.29$ df = 8 $P < .01$

In general, are you satisfied with your school?

(Student Opinion Question 31)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Dissatisfied | Dissatisfied | Neither S Nor D | Satisfied | Very Satisfied | | |
| 1982 | 3% | 9% | 23% | 46% | 19% | (266) | 3.7 |
| 1983 | 7 | 14 | 35 | 39 | 6 | (417) | 3.2 |
| 1984 | 4 | 14 | 28 | 41 | 13 | (453) | 3.4 |
| Total | 5 | 13 | 30 | 41 | 12 | (1136) | |

$x^2 = 44.28$ df = 8 $P < .01$

## F. SCHOOL ADMINISTRATION

If you had a problem or suggestion for the administration, how long would you have to wait to talk to a member of the administration?

(Student Opinion Question 18)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Could Not Talk At All | Within A Month | Within A Week | Within The Day | Immediately | | |
| 1982 | 10% | 9% | 28% | 42% | 10% | (271) | 3.3 |
| 1983 | 17 | 12 | 30 | 33 | 9 | (419) | 3.1 |
| 1984 | 14 | 10 | 28 | 40 | 9 | (461) | 3.2 |
| Total | 14 | 10 | 29 | 38 | 9 | (1151) | |

$x^2 = 10.93$ df = 8 P = NS

In general, are you satisfied with the way you are treated by the administration?

(Student Opinion Question 19)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Dissatisfied | Dissatisfied | Neither S Nor D | Satisfied | Very Satisfied | | |
| 1982 | 12% | 14% | 39% | 29% | 6% | (269) | 3.0 |
| 1983 | 16 | 16 | 37 | 27 | 5 | (418) | 2.9 |
| 1984 | 11 | 12 | 38 | 32 | 6 | (459) | 3.1 |
| Total | 13 | 14 | 38 | 29 | 6 | (1146) | |

$x^2 = 8.12$ df = 8 P = NS

In general, how often does the administration seem to really care about you as an individual?

(Student Opinion Question 20)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Never | Seldom | About Half The Time | Usually | Always | | |
| 1982 | 19% | 25% | 24% | 22% | 10% | (268) | 2.8 |
| 1983 | 19 | 30 | 27 | 19 | 5 | (418) | 2.6 |
| 1984 | 20 | 28 | 20 | 24 | 9 | (461) | 2.7 |
| Total | 19 | 28 | 24 | 22 | 8 | (1147) | |

$x^2 = 14.26$ df = 8 P = NS

Are you satisfied with the way the administration includes the students in making decisions about matters which directly affect the students (dress code, assemblies, etc.)?

(Student Opinion Question 21)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Very Dis-satisfied | Dis-satisfied | Neither S Nor D | Satisfied | Very Satisfied | | |
| 1982 | 22% | 13% | 32% | 26% | 8% | (271) | 2.8 |
| 1983 | 23 | 20 | 27 | 22 | 8 | (420) | 2.7 |
| 1984 | 20 | 18 | 29 | 24 | 8 | (463) | 2.8 |
| Total | 22 | 18 | 29 | 24 | 8 | (1154) | |

$x^2 = 8.35$ df = 8 P = NS

How much personal encouragement does the administration give you concerning your schoolwork?

(Student Opinion Question 22)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | None I Need | Little I Need | About Half I Need | Most I Need | All I Need | | |
| 1982 | 25% | 19% | 27% | 21% | 9% | (271) | 2.7 |
| 1983 | 25 | 24 | 25 | 18 | 8 | (417) | 2.6 |
| 1984 | 24 | 21 | 24 | 21 | 10 | (460) | 2.7 |
| Total | 24 | 22 | 25 | 20 | 9 | (1148) | |

$x^2 = 5.77$ df = 8 P = NS

Does the administration talk to you as an individual on all occasions?

(Student Opinion Question 23)

| School Year | Percents Of Student Responses | | | | | Number Responding | Mean Scores |
|---|---|---|---|---|---|---|---|
| | Never | Seldom | About Half The Time | Usually | Always | | |
| 1982 | 41% | 24% | 16% | 14% | 6% | (271) | 2.2 |
| 1983 | 36 | 27 | 18 | 14 | 6 | (419) | 2.3 |
| 1984 | 33 | 28 | 17 | 17 | 5 | (462) | 2.3 |
| Total | 36 | 27 | 17 | 15 | 6 | (1152) | |

$x^2 = 6.55$ df = 8 P = NS

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# APPENDIX C

## A. STUDENT ACTIVITIES

In how many of the student activities that you participate in are the students involved in planning the activity?

(Student Opinion Question 1)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 2.22 | 2.90 | 2.77 | 2.78 | < .01 | < .01 |
| 1983 | 2.47 | 2.49 | 2.58 | 2.52 | NS | NS |
| 1984 | 2.35 | 2.51 | 2.59 | 2.80 | NS | < .01 |

(Response scale range: (1) None to (5) All)

In how many of the activities of your school would you feel that you would be accepted?

(Student Opinion Question 2)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.25 | 3.69 | 3.55 | 3.78 | < .01 | < .01 |
| 1983 | 3.20 | 3.37 | 3.54 | 3.65 | .01 | .01 |
| 1984 | 3.26 | 3.58 | 3.37 | 3.53 | NS | NS |

(Response scale range: (1) None to (5) All)

How many student activities (clubs, parties, plays, athletics, etc.) that you would like to participate in, do you participate in?

(Student Opinion Question 3)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 2.47 | 2.84 | 2.71 | 2.91 | NS | .03 |
| 1983 | 2.61 | 2.45 | 2.53 | 2.71 | NS | NS |
| 1984 | 2.64 | 2.95 | 3.00 | 2.90 | NS | NS |

(Response scale range: (1) None to (5) All)

How many sponsors of the activities that you participate in seem well suited to the activity?

(Student Opinion Question 5)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 2.90 | 3.42 | 3.28 | 3.23 | NS | NS |
| 1983 | 3.03 | 3.10 | 3.08 | 3.39 | NS | NS |
| 1984 | 3.19 | 3.17 | 3.09 | 3.13 | NS | NS |

(Response scale range: (1) None to (5) All)

How satisfied are you with the variety of student activities that your school offers?

(Student Opinion Question 33)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.56 | 3.98 | 3.49 | 3.65 | .01 | NS |
| 1983 | 3.50 | 3.38 | 3.35 | 3.14 | NS | .02 |
| 1984 | 3.96 | 3.79 | 3.14 | 3.32 | < .01 | < .01 |

(Response scale range: (1) Very Dissatisfied to (5) Very Satisfied)

How satisfied are you with the quality of student activities that your school offers?

(Student Opinion Question 34)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.57 | 3.79 | 3.45 | 3.59 | NS | NS |
| 1983 | 3.43 | 3.26 | 3.23 | 3.26 | NS | NS |
| 1984 | 3.78 | 3.63 | 3.09 | 3.31 | < .01 | < .01 |

(Response scale range: (1) Very Dissatisfied to (5) Very Satisfied)

B. INSTRUCTION

How many of your teachers seem to care if you learn the subject they teach?

(Student Opinion Question 6)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.58 | 3.89 | 3.81 | 3.72 | NS | NS |
| 1983 | 3.55 | 3.54 | 3.57 | 3.54 | NS | NS |
| 1984 | 3.83 | 3.62 | 3.45 | 3.48 | NS | .01 |

(Response scale range: (1) None to (5) All)

How often do your teachers clearly explain what to do on assignments?

(Student Opinion Question 7)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.84 | 3.78 | 3.88 | 3.87 | NS | NS |
| 1983 | 3.76 | 3.66 | 3.65 | 3.77 | NS | NS |
| 1984 | 3.93 | 3.74 | 3.75 | 3.62 | NS | .05 |

(Response scale range: (1) Never to (5) Always)

How much help do your teachers usually give you with your schoolwork?

(Student Opinion Question 8)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.48 | 3.64 | 3.34 | 3.61 | NS | NS |
| 1983 | 3.61 | 3.51 | 3.50 | 3.60 | NS | NS |
| 1984 | 3.85 | 3.66 | 3.64 | 3.62 | NS | NS |

(Response scale range: (1) None of the help I need to
(5) All the help I need)

How many of your teachers make sure you understand what they teach in class?

(Student Opinion Question 9)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.35 | 3.65 | 3.52 | 3.82 | NS | .03 |
| 1983 | 3.51 | 3.57 | 3.54 | 3.58 | NS | NS |
| 1984 | 3.84 | 3.58 | 3.60 | 3.48 | NS | .02 |

(Response scale range: (1) None to (5) All)

How often do your teachers clearly explain how assignments are to be done?

(Student Opinion Question 10)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.55 | 3.70 | 3.74 | 3.72 | NS | NS |
| 1983 | 3.77 | 3.68 | 3.79 | 3.81 | NS | NS |
| 1984 | 4.04 | 3.74 | 3.83 | 3.67 | NS | .02 |

(Response scale range: (1) Never to (5) Always)

How many of your teachers are willing to give students individual help outside of class time?

(Student Opinion Question 11)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 2.55 | 3.00 | 3.03 | 3.31 | < .01 | < .01 |
| 1983 | 2.95 | 2.95 | 2.92 | 3.28 | NS | NS |
| 1984 | 3.06 | 3.06 | 3.06 | 3.06 | NS | NS |

(Response scale range: (1) None to (5) All)

How many of your teachers give you enough personal encouragement in your schoolwork?

(Student Opinion Question 12)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 2.63 | 2.89 | 2.72 | 3.15 | NS | .03 |
| 1983 | 2.73 | 2.71 | 2.80 | 2.91 | NS | NS |
| 1984 | 2.98 | 2.82 | 3.11 | 2.76 | NS | NS |

(Response scale range: (1) None to (5) All)

In how many of your courses are you satisfied with the methods used to teach the courses?

(Student Opinion Question 25)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.48 | 3.73 | 3.57 | 3.50 | NS | NS |
| 1983 | 3.62 | 3.41 | 3.46 | 3.34 | NS | NS |
| 1984 | 3.55 | 3.55 | 3.13 | 3.23 | .01 | < .01 |

(Response scale range: (1) None to (5) All)

C. CURRICULUM

How much of what you are studying do you think will be useful to you in everyday living?

(Student Opinion Question 24)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.65 | 3.79 | 3.62 | 3.62 | NS | NS |
| 1983 | 3.77 | 3.56 | 3.46 | 3.78 | NS | NS |
| 1984 | 3.90 | 3.70 | 3.42 | 3.34 | .01 | .01 |

(Response scale range: (1) None of what I am studying to
(5) Everything I am studying)

Regardless of what your grades may be, in how many of your school subjects would you say that you are "learning a lot" this year?

(Student Opinion Question 26)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.77 | 3.86 | 3.89 | 3.68 | NS | NS |
| 1983 | 3.67 | 3.64 | 3.65 | 3.64 | NS | NS |
| 1984 | 3.85 | 3.90 | 3.50 | 3.72 | .02 | NS |

(Response scale range: (1) In none of my subjects to
(5) In all my subjects)

How many of the things that you should be learning right now are being taught in your school?

(Student Opinion Question 27)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.61 | 3.94 | 3.79 | 3.48 | NS | NS |
| 1983 | 3.64 | 3.50 | 3.34 | 3.25 | NS | < .01 |
| 1984 | 3.83 | 3.63 | 3.25 | 3.13 | < .01 | < .01 |

(Response scale range: (1) None to (5) All)

All things considered, how much do you think you are learning from your schoolwork?

(Student Opinion Question 28)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.68 | 3.95 | 3.64 | 3.63 | NS | NS |
| 1983 | 3.84 | 3.67 | 3.34 | 3.45 | < .01 | < .01 |
| 1984 | 3.84 | 3.86 | 3.27 | 3.38 | < .01 | < .01 |

(Response scale range: (1) Considerably less than I can learn to (5) All that I can learn)

In general, how well satisfied are you with the variety of the subjects that your school offers?

(Student Opinion Question 32)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.81 | 3.91 | 3.61 | 3.53 | NS | .02 |
| 1983 | 3.73 | 3.51 | 3.67 | 3.35 | .01 | .03 |
| 1984 | 3.88 | 3.74 | 3.23 | 3.43 | < .01 | < .01 |

(Response scale range: (1) Very Dissatisfied to (5) Very Satisfied)

## D. GUIDANCE AND COUNSELING PROGRAM

**How much help does your counselor give you in the selection of a college, vocational, or trade school?**

(Student Opinion Question 13)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.42 | 4.00 | 3.66 | 3.66 | NS | NS |
| 1983 | 3.47 | 3.57 | 3.41 | 3.64 | NS | NS |
| 1984 | 3.69 | 3.91 | 3.18 | 3.60 | < .01 | NS |

(Response scale range: (1) None of the help I need to
(5) All the help I need)

**How much help does your counselor give you in the selection of courses?**

(Student Opinion Question 14)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.81 | 4.32 | 4.22 | 3.88 | .02 | NS |
| 1983 | 3.61 | 3.84 | 3.69 | 3.87 | NS | NS |
| 1984 | 4.12 | 4.26 | 3.33 | 3.66 | < .01 | < .01 |

(Response scale range: (1) None of the help I need to
(5) All the help I need)

**In general, are you satisfied with the way you are treated by your counselor?**

(Student Opinion Question 15)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.73 | 4.13 | 3.98 | 3.95 | NS | NS |
| 1983 | 3.71 | 3.52 | 3.52 | 3.75 | NS | NS |
| 1984 | 4.03 | 4.02 | 3.27 | 3.75 | < .01 | < .01 |

(Response scale range: (1) Very Dissatisfied to (5) Very Satisfied)

**How much help does your counselor give you in the selection of a vocation?**

(Student Opinion Question 16)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.04 | 3.64 | 3.50 | 3.55 | .04 | .02 |
| 1983 | 3.34 | 3.32 | 3.19 | 3.40 | NS | NS |
| 1984 | 3.39 | 3.71 | 2.77 | 3.25 | < .01 | .04 |

(Response scale range: (1) None of the help I need to (5) All the help I need)

How much help does your counselor give you in solving your personal problems?

(Student Opinion Question 17)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 2.93 | 3.01 | 2.89 | 2.84 | NS | NS |
| 1983 | 3.02 | 2.75 | 2.47 | 2.81 | NS | NS |
| 1984 | 3.17 | 3.02 | 3.52 | 2.75 | .01 | < .01 |

(Response scale range: (1) None of the help I need to
(5) All the help I need)

E. SCHOOL MORALE

How often do you feel that you "belong" in your school?

(Student Opinion Question 4)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.80 | 4.31 | 4.29 | 3.97 | .02 | NS |
| 1983 | 3.85 | 3.67 | 3.63 | 3.97 | NS | NS |
| 1984 | 3.96 | 4.11 | 3.54 | 3.82 | .01 | NS |

(Response scale range: (1) Never to (5) Always)

In general, how proud or ashamed of your school are you?

(Student Opinion Question 29)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.39 | 3.86 | 3.86 | 3.72 | .01 | .01 |
| 1983 | 3.34 | 3.16 | 3.27 | 3.24 | NS | NS |
| 1984 | 3.55 | 3.61 | 3.13 | 3.35 | < .01 | .02 |

(Response scale range: (1) I am very ashamed of my school
to (5) I am very proud of my school)

How would you rate "school spirit" at your school? (Consider students' support of athletic teams, charity drives, class money-raising projects, etc.)

(Student Opinion Question 30)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.67 | 4.05 | 3.84 | 3.18 | < .01 | .03 |
| 1983 | 3.44 | 3.18 | 3.10 | 2.62 | < .01 | < .01 |
| 1984 | 3.67 | 3.82 | 2.86 | 3.13 | < .01 | < .01 |

(Response scale range: (1) Very Poor to (5) Excellent)

In general, are you satisfied with your school?

(Student Opinion Question 31)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.58 | 3.77 | 3.74 | 3.72 | NS | NS |
| 1983 | 3.43 | 3.20 | 3.17 | 3.04 | .05 | < .01 |
| 1984 | 3.55 | 3.64 | 3.01 | 3.43 | < .01 | .02 |

(Response scale range: (1) Very Dissatisfied to (5) Very Satisfied)

## F. SCHOOL ADMINISTRATION

If you had a problem or suggestion for the administration, how long would you have to wait to talk to a member of the administration?

(Student Opinion Question 18)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 3.29 | 3.32 | 3.27 | 3.45 | NS | NS |
| 1983 | 3.25 | 3.01 | 3.02 | 2.92 | NS | NS |
| 1984 | 3.26 | 3.28 | 2.80 | 3.21 | .01 | NS |

(Response scale range: (1) I couldn't talk to the administration at all to (5) I could talk to the administration immediately)

In general, are you satisfied with the way you are treated by the administration?

(Student Opinion Question 19)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 2.97 | 3.06 | 2.93 | 3.13 | NS | NS |
| 1983 | 3.16 | 2.84 | 2.75 | 2.71 | .02 | < .01 |
| 1984 | 3.29 | 3.19 | 2.64 | 2.98 | < .01 | < .01 |

(Response scale range: (1) Very Dissatisfied to (5) Very Satisfied)

**In general, how often does the administration seem to really care about you as an individual?**

(Student Opinion Question 20)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 2.64 | 2.97 | 2.79 | 2.65 | NS | NS |
| 1983 | 2.87 | 2.46 | 2.69 | 2.47 | .02 | NS |
| 1984 | 2.88 | 2.62 | 2.54 | 2.55 | NS | .04 |

(Response scale range: (1) Never to (5) Always)

**Are you satisfied with the way the administration includes the students in making decisions about matters which directly affect the students (dress code, assemblies, etc.)?**

(Student Opinion Question 21)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 2.93 | 2.70 | 2.70 | 3.06 | NS | NS |
| 1983 | 3.04 | 2.65 | 2.63 | 2.42 | $< .01$ | $< .01$ |
| 1984 | 3.19 | 3.00 | 2.44 | 2.43 | $< .01$ | $< .01$ |

(Response scale range: (1) Very Dissatisfied to (5) Very Satisfied)

How much personal encouragement does the administration give you concerning your schoolwork?

(Student Opinion Question 22)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 2.62 | 2.93 | 2.47 | 2.72 | NS | NS |
| 1983 | 2.84 | 2.57 | 2.51 | 2.32 | .04 | < .01 |
| 1984 | 2.86 | 2.65 | 2.63 | 2.46 | NS | .03 |

(Response scale range: (1) None of the encouragement I need to (5) All the encouragement I need)

Does the administration talk to you as an individual on all occasions?

(Student Opinion Question 23)

| Year | Mean Score Per Grade | | | | Significance Levels | |
|---|---|---|---|---|---|---|
| | 9 | 10 | 11 | 12 | Anova | Linearity |
| 1982 | 2.03 | 2.36 | 2.20 | 2.18 | NS | NS |
| 1983 | 2.43 | 2.20 | 2.17 | 2.18 | NS | NS |
| 1984 | 2.37 | 2.32 | 2.30 | 2.13 | NS | NS |

(Response scale range: (1) Never to (5) Always)

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